

Title (en)

Apparatus for joining metal components using broad, thin filler nozzle

Title (de)

Vorrichtung zum Verbinden metallischer Bauteile mit einer breiten dünnen Zusatzdüse

Title (fr)

Dispositif de jonction de composants métalliques utilisant une buse de charge large et mince

Publication

EP 0819495 A2 19980121 (EN)

Application

EP 97304342 A 19970620

Priority

US 66705396 A 19960620

Abstract (en)

A filler material guide nozzle assembly (12A) for feeding fusible filler metal wire (10) or other metal forms into reduced-width, high-aspect-ratio (ratio of depth to width) metallic joints (2) with control and stability of the filler metal position as it enters the molten pool area. The filler material guide nozzle assembly is designed with a thin but stiff non-circular cross-sectional shape, with its width dimension significantly greater than its thickness dimension, and can be utilized in very reduced-width welded or otherwise fused joints to provide the accuracy and stability required for reliable filler material addition. During use with welding, brazing and similar processes, the outlet end of the nozzle is located within the joint near the bottom, close to the area (4) to be fused. The width dimension of the nozzle apparatus is oriented parallel to the depth of the weld joint, and the thickness dimension is oriented perpendicular to the depth of the joint. The thickness of the nozzle apparatus is less than the thickness of the joint between the components to be fused with the filler metal, allowing the outlet end of the nozzle to be fitted within the joint and in closer proximity to the molten pool during the joining process. <IMAGE>

IPC 1-7

B23K 9/22; **B23K 9/29**

IPC 8 full level

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CPC (source: EP US)

B23K 9/0213 (2013.01 - EP US); **B23K 9/164** (2013.01 - EP US)

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